

(57) **Abstract:** A wireless security alarm system providing reliable two-way communication between a control unit and a plurality of peripheral devices, including sensors, alarm indicators and remote controls. The system of the invention provides a large number of channels for monitoring both intrusion and environmental conditions, and can include emergency dialing capabilities for the elderly or small children. A monitoring service can monitor the premises, and upon detecting an alarm condition to process audio and/or video data allowing the monitoring service to watch and/or listen to events occurring within the premises and dispatch an appropriate emergency response, and to communicate with persons within the premises during an emergency. The peripherals used in system of the invention can be configured through the control unit and automatically or remotely reconfigured if the control unit detects attempts to tamper with peripherals or jam the signals to the control unit. The system may be programmed by connection to a local or remote personal computer. To reduce the incidence of false alarms in response to an indication of an alarm condition by a sensor the main control unit may request a status signal from the sensor, and/or from one or more neighboring sensors, to verify the alarm condition. A cordless telephone handset may function as a remote control device for the system, wherein an LCD displays system status and other desired indicators, and the telephone keypad is used for data entry and activation or deactivation of the alarm system. A cellular, pager or two-way radio connection backup may be provided in case of sabotage or failure of the telephone line, or used as the primary communication link.